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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,252	01/22/2004	Athanasios N. Tsergas	244788US51	2570
22850	7590	07/27/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			LE, DANG D	
1940 DUKE STREET			ART UNIT	
ALEXANDRIA, VA 22314			PAPER NUMBER	
			2834	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No. 10/761,252	Applicant(s) TSERGAS, ATHANASE N.	
	Examiner Dang D. Le	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-6 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/7/05 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

For the record, 1 horsepower is equal to 746 watts. In other words, 0.00134 horsepower is equal to 1 watt.

It is noted that in the art of motor and generator, the motor with a certain rated horsepower is operable at said rated horsepower or less depending on the speed of the motor. See Sklenar (3,494,031), column 4, lines 50-60 and Nelson et al. (3,016,239), column 12, lines 65-70. In other words, the 1-watt motor is operable at less than 0.00134 horsepower at lower speed.

In addition, it is well known to make a brush-commutated DC motor operable at 1 watt or less than 1 watt. See Popat (5,760,558), Figure 10A and column 31, line 60 to column 32, line 5; Jones (4,760,318), column 6, lines 40-50; Hameyer (Permanent

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Magnet Excited Brushed DC Motor, IEEE, vol. 43, no. 2, April 1996), page 247, column 1 and page 250, Figure 5; and Faulhaber (web page from micromo.com, dated 2003)

Brush and commutator are also known to be used in generator operable at less than 1 watt. See Leeds (2,031,050), Figure 1 and column 2, lines 65-75.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Du et al. (6,744,170).

Regarding claim 1, Du et al. shows a brush and brush holder assembly (Figure 3) for a micro horsepower (HP) electric motor, comprising:

- A brush (28) having a tip (74);
- A brush holder (24) surrounding the tip of the brush;
- A shunt (30) carrying current to the tip of the brush; and
- An independent coil wire spring (26) applying constant pressure to the brush.

Du et al. does not show the electric motor being operable at less than .001 HP.

However, it would have been an obvious matter of design choice to make the electric motor operable at less than .001 HP for the purpose of utilizing the micromotor in micro environment, since such a modification would have involved a mere change in

the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955).

In addition, in Gardner v. TEC Systems, Inc. , 725 F.2d 1338, 220 USPQ 777 (Fed.Cir. 1984), cert. denied , 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Regarding claims 2-6, it is noted that Du et al. also shows all of the limitations of the claimed invention.

5. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (4,760,318) in view of Smith (3,867,679).

Regarding claim 1, Jones shows a brush and brush holder assembly (inherently, there must be a holder to support the brush for brush motor) for a micro horsepower (0.1 watt) electric motor, comprising:

- A brush (6, 7, 9) having a tip (every object has a tip);
- A brush holder (not shown);
- Wherein the electric motor being operable at less than .001 HP (0.1 watt, column 6, lines 45).

Jones does not show:

- A brush holder surrounding the tip of the brush;
- A shunt carrying current to the tip of the brush; and

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- An independent coil wire spring applying constant pressure to the brush.

For the purpose of reducing friction loss, Smith shows:

- A brush holder (72, Figure 4) surrounding the tip of the brush (20);
- A shunt (36) carrying current to the tip of the brush; and
- An independent coil wire spring (27) applying constant pressure to the brush.

Since Jones and Smith are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a brush holder surrounding the tip of the brush; a shunt carrying current to the tip of the brush; and an independent coil wire spring applying constant pressure to the brush as taught by Smith for the purpose discussed above.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones (4,760,318) in view of Sugai et al. (6,031,313).

Regarding claim 1, Jones shows a brush and brush holder assembly (inherently, there must be a holder to support the brush for brush motor) for a micro horsepower (0.1 watt) electric motor, comprising:

- A brush (6, 7, 9) having a tip (every object has a tip);
- A brush holder (not shown);
- Wherein the electric motor being operable at less than .001 HP (0.1 watt, column 6, lines 45).

Jones does not show:

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- A brush holder surrounding the tip of the brush;
- A shunt carrying current to the tip of the brush; and
- An independent coil wire spring applying constant pressure to the brush.

For the purpose of reducing noise, Sugai et al. shows:

- A brush holder (13) surrounding the tip of the brush (24);
- A shunt (28) carrying current to the tip of the brush; and
- An independent coil wire spring (22) applying constant pressure to the brush.

Since Jones and Sugai et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a brush holder surrounding the tip of the brush; a shunt carrying current to the tip of the brush; and an independent coil wire spring applying constant pressure to the brush as taught by Sugai et al. for the purpose discussed above.

Regarding claims 2-6, it is noted that Sugai et al. also shows all of the limitations of the claimed invention.

Information on How to Contact USPTO

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

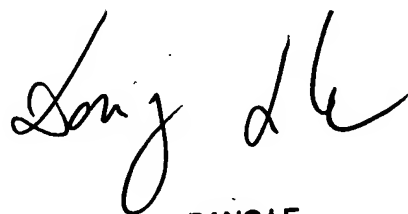
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone

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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/23/05

A handwritten signature in black ink, appearing to read 'Dangle', is written over a rectangular stamp.

DANGLE
PRIMARY EXAMINER